*Asking the right questions*. M. Neil Browne, S. Keeley, 2001

**Critical thinking questions**

What are the issue and the conclusions?

Issue relates to the theme or topic of the discussion.

What are the reasons?

Given for coming to this conclusion

Which words or phrases are ambiguous?

Does the conclusion or more importantly, the reasons given for it, contain words that can be understood in more than one way?

What are the value conflicts and assumptions?

Assumptions are unstated ideas, taken for granted in the reasoning. Usually they include values, which the author believes in.

What are the descriptive assumptions?

Look for gaps between reasons and conclusions to discover unstated assumptions.

Are there any fallacies in the reasoning?

“Reasoning should be *rejected* whenever you have found mistaken assumptions, distractions, or support for the conclusion that already assumes the truth of the conclusion. Reasoning should be *approached cautiously* when it appeals to group-approved attitudes and authority.”

How good is the evidence?

Be cautious if the reasons rely on intuition, appeals to authority, and personal testimonies. Have more trust in personal observations, case studies, research studies, and analogies (if they are relevant to the argument; look at the number of ways the two things being compared are similar and different). Be careful of biased observations, vivid case studies, poorly designed research, or faulty analogies.

Are there rival causes?

A common logical error in explaining observations is to confuse causation with association. Thus, always ask what other causes might explain observed associations.

Are the statistics deceptive?

When you encounter statistics, be sure to ask ‘what relevant information is missing?’

What significant information is omitted?

Are potential negative effects of the action being advocated addressed?

What reasonable conclusions are possible?

Does the evidence lead only to the conclusion cited, or are there other conclusions that could be drawn from the best evidence?